# Compliance Systems, Inc.

# Final Environmental Audit
# M/T Fidias

Conducted May 22 – 25, 2011
Underway Piraeus, Greece to Venice Italy

In the matter of:

United States of America
v.
Ionia Management, S.A.
Case No. 3:07CR134 (JBA)

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June 3, 2011

**M/T FIDIAS**
**Final Environnemental Audit**
**Piraeus, Greece – Venice, Italy**
**May 22 – 25, 2011**

**Preliminary**

The undersigned conducted a Final Environmental Audit aboard the M/T FIDIAS, while the vessel was at anchor off of Piraeus and underway to Venice, Italy. The vessel underwent an ongoing audit June 7 and 8, 2010.

The FIDIAS is an Oil/Chemical tanker of 30,004 GRT, built by STX Ship building, Jinhae shipyard in the Republic of South Korea. The vessel was delivered to its present owners and managers on June 29th, 2007. The vessel is powered by a B&W six-cylinder main engine of 9490 KW. The vessel has twelve cargo tanks with a total capacity of 53205.26 $m^3$ and port and starboard slop tanks with capacities of 713.643 $m^3$ and 720.777 $m^3$ respectively. Complete vessel particulars are attached[1].

Audit participants[2] included:

Georgios Birmpilopoulos, Master
Ilias Simoudis, Chief Engineer
Lawrence Loay, Chief Officer
Rolly Defante, Second Engineer
Tirso Geolin, Third Engineer
Bartolome Aborde., Fourth Engineer
Palermo Encarnacion, Electrician
Rico Piensenabis, Pumpman

In addition to the above, various crewmembers from all departments were interviewed at different times with regard to their duties related to environmental aspects of ship operation and awareness.

The opening meeting was delayed until 23 May 2011 while the DNV annual survey was completed.

The schedule of the final audit was as follows:

22-May-11

| | | |
|---|---|---|
| 9:30 | | Arrived onboard offshore Piraeus |
| 10:00 | 10:15 | Coffee break |
| 10:15 | 12:00 | Review documents, logs and records |
| 12:00 | 13:00 | Lunch |
| 13:00 | 15:00 | Review documents, logs and records |
| 15:00 | 15:15 | Coffee Break |
| 15:15 | 17:00 | Review documents, logs and records |
| 17:00 | 18:00 | Evening meal |
| 18:00 | 20:00 | On bridge for departure, reviewed hand over notes. |
| 20:00 | | Rest overnight |

23-May-11

| | | |
|---|---|---|
| 8:00 | 8:15 | Opening meeting |
| 8:15 | 9:15 | Review Audits, SOPEP, VRP and Drills, Training and Familiarization. Carry out discussions with Master and C/O. |
| 9:15 | 10:00 | Review Garbage Management, Galley inspection, inspect garbage stowage and segregation, Hazardous Waste practices, storage and collection. Carry out discussions with C/O. |
| 10:00 | 10:15 | Coffee break |
| 10:15 | 11:00 | Review Sounding Log, Oil Transfer Procedures. Carry out discussions with C/E. |
| 11:00 | 12:00 | Examine standard discharge connection, overflow discharge containment, MARPOL equipment, deck walk. Carry out discussions with C/O, Bosun and pump man. |
| 12:00 | 13:00 | Lunch |
| 13:00 | 15:00 | Examine Engine room, inspection of operating machinery, pumps, etc, Oily Water Separator, incinerator |
| 15:00 | 15:15 | Coffee break |
| 15:15 | 17:00 | Review Bilge Water Management, Sewage Waste Stream, Purifiers. Carry out discussions with C/E, 2/E, 4/E. |
| 17:00 | 18:00 | Dinner |
| 18:00 | 20:00 | Review documents, logs and records |

24-May-11

| | | |
|---|---|---|
| 8:00 | 10:00 | Review Ballast Water Management. Carry out discussions with C/O and 2/O. |
| 10:00 | 10:15 | Coffee break |
| 10:15 | 12:00 | Review Seal Management Program. Carry out discussions with |

| | | |
|---|---|---|
| | | Master, C/O and C/E. |
| 12:00 | 13:00 | Lunch |
| 13:00 | 14:00 | Witness ODME test. Carry out discussions with C/O. |
| 14:00 | 15:00 | Review Oil to Sea Interfaces, Review flexible hoses and pollution equipment records. Carry out discussions with C/O and C/E. |
| 15:00 | 15:15 | Coffee break |
| 15:15 | 17:00 | Review Port State Control Exams and recycling program. Carry out discussions with Master and C/O. |
| 17:00 | 18:00 | Dinner |
| 18:30 | 20:00 | Review documents, logs records, etc. |

25-May-11

| | | |
|---|---|---|
| 08:00 | 10:00 | Review SWOMS, EEOI monitoring, Review soundings of tanks against Enviro Logger, examine OWS overboard piping. Carryout discussions with C/E, 2/E, 4/E and electrician. |
| 10:00 | 10:15 | Coffee break |
| 10:15 | 12:00 | Review Fleet engineering surveys |
| 12:00 | 13:00 | Lunch |
| 13:00 | 14:00 | Out brief |
| 19:40 | | Departed vessel |

The audit was conducted in accordance with Attachment A, Section B of the Special Master Appointment and Scope of Work pursuant to the criminal case, United Sates of America v. Ionia Management S. A., Criminal No.3: CR134 (JBA). The audit process consisted of a review of Safety Management System (SMS) and Environmental Management System (EMS) documents; records and procedures related to environmental matters; MARPOL required logs and records; inspection and testing of vessel waste handling equipment, including the oily water separator (OWS), incinerator, sewage treatment plant (STP); and interviews with vessel personnel.

To implement the EMS, Ionia Management has developed an Environmental Management Manual (EMM), which has been placed aboard. The EMM contains environmental policies and procedures in alignment with the Scope of Work, as well as additional environmental procedures, developed by Ionia Management. In addition, environmental procedures are also contained in the vessel's SMS Manual. Ionia Management certification for ISO 14001/2004, DNV certificate No. 24257-2008-AQ-HRV-RvA, issued on April 08, 2008 expired on April 08, 2011. According to the Master, the survey to renew the certification has been completed and recertification pends.

Overall, I found the environmental procedures and requirements to be well implemented. I found the officers and crew to be very cooperative and positive throughout the audit. Senior officers, including the Master, C/E. and C/O were knowledgeable of the Scope of Work requirements and the EMM appeared fully committed to the purpose and philosophy of the

EMM. This was clearly demonstrated throughout my audit and during discussions with these officers.

Following are my observations and comments. They are supported by the attached EMS Audit Checklist[3], photos[4] and the enclosures to this report. The observations are separated into two categories - those with recommendations and those without. As noted below, some of recommendations were completed prior to my departure from the vessel. The second category of Observations is primarily included in the audit report to provide an understanding of the functionality of the EMS aboard.

**Observations with Recommendations**

1. Attachment B of the Scope of Work and EMM 5.4 and 5.5 details the labeling of the cross over valves and the emergency bilge suctions. The labels are not correct. The port forward emergency bilge suction is labeled as a crossover valve. Recommend that the crossover valves and the emergency bilge suctions be labeled in accordance with the order and the EMM. Prior to the completion of the audit, the valve was relabeled.

2. Section 13.3 of the EMM requires that a copy of the Special Master's Appointment and Scope of Work shall be maintained onboard the vessel at the following locations: Master's Office, Chief Engineer's Office, Engine Control Room and Bridge. Section X of the Scope of Work includes the quarters of the Master and Chief Engineer, as well as in the engine control room and on the bridge. The Special Master's Appointment and Scope of Work was not on the Bridge, however a copy for the Bridge was provided prior to my departure. Section 1.3 of the EMS requires that the company policies shall be clearly posted at the Master's Office, Chief Engineer's Office, Bridge, CCR, ECR, Officer Mess room and Crew mess room. The CCM name and contact details were neither in the officers mess nor the crews mess however were posted prior to my departure.

3. Oil Record Books Part I (ORB) from the vessel delivery in 2007 until present were reviewed. Some entries in the Oil Record Book (ORB) are heavily overwritten and not properly corrected. Recommend that corrections be made with a single line through the mistaken entry so that it can still be read, the correct entry made and accompanied with the signature of the person making the correction.

4. The Master's handover report Form ENV 023A[5] dated 29 November 2010 lists in block 19 that the Oil Content Meter has not been calibrated and in block 20 that the ODME has not been calibrated. That is not correct, the OCM and ODME were in calibration at the time of the handover. Looking back at previous Masters records, I noted that the entries are identical and it is likely that a previous error was copied forward at relief.

   EMS 4.2 requires that the C/E's handover notes include an environmental component and description of the former and current status of operation, maintenance, and repair, for the Incinerator, OWS and other pollution prevention procedures or equipment, the status of spare parts for this equipment, and an accurate estimation of the day-to-day bilge loads and accumulations. Paragraph nine of the most recent Chief Engineer Hand

Over Report[6] "List available instruction manuals related to pollution prevention equipment" is blank; however, the instruction manuals are onboard. There are no spare parts listed in paragraph 10 for the sewage plant or the ODME; however the spare parts for both those systems are on board. Additionally there is no estimation of the day-to-day bilge loads and accumulations.

To provide the crewmember's successor with key knowledge and information regarding their position so that the transition period is as short and smooth as possible recommend that the hand over notes be completed in accordance with the EMS.

5. Lubricant bunker volume in the Oil Record Book Part I[7] is recorded in liters vice metric tons as required by MARPOL and by the EMM 9.5. Recommend that lubricants bunkers be recorded in metric tons vice liters. Prior to my departure, the C/E corrected the units with a late entry.

6. Samples were taken in accordance with the Scope of Work during the ongoing audit and forwarded to NAIAS Scientific. Test results from NAIAS were onboard; however, verification from the oily water separator manufacturer that the oily water separator is capable of processing fluids having this content was not available.

7. The incinerator capacity listed on the Supplement to the IOPP Certificate[8] is 49.9 Kg/hour. Review of the technical data contained in the manufacturer's manual indicates this value is 38 Kg/hour. Recommend that the accuracy of the Supplement to the IOPP Certificate be verified by Class during the next occasion of their visit to the vessel. This was noted as a deficiency during another audit.

8. The Master maintains a Spare Seal Inventory Log[9], and an Engine Room Seal Log[10] is maintained by the C/E. As with other records, some entries are heavily overwritten and whiteout correction fluid was used to make corrections. Both logs are bound with sequentially number pages. Locations of seals are generally identified by a coded system (see attached "Vessel Seal Allocation[11]"). In addition, a piping system diagram identifies locations where seals are placed.

   I spot checked the installed seals against the logs and found that the installation and the logs do not match. In the Master's spare seal log, seal 009252 is listed as having been replaced by 009258. In the C/E's seal log, seal 009252 is listed as having been replaced by seal 009258. Those entries are not correct. Installed on the Port Sludge discharge connection is seal 009258 and installed on the Starboard discharge connection is seal 009252. Listed in the Master's log is seal 009254 replaced seal 009025, however in the C/E's log the seal numbers have been transposed indicating that the 009025 is still installed. Other transposed seal numbers in both logs were also noted. As mentioned in another audit, some seal locations are difficult locate because the precise location, port or starboard for example, is not listed. It is the opinion of this auditor that the seal discrepancies are the result of administrative error. Regardless I recommend that the seal installation be verified for accuracy against the seal logs and corrected as needed. Additionally, as recommended in another audit, recommend the

specific location of the seal be identified in the Engine Room Seal Log in the column labeled and that the use of whiteout correction fluid be discontinued. I also recommend that the accuracy of the seal management program be periodically verified.

9. An operational test of the OWS was scheduled for 13:00 on 24 May 2011 while the vessel was underway. The initial test failed, reportedly due to low level in the bilge tank. Subsequent tests also failed after there was adequate fluid in the tank, likely due to air in the OWS second stage tank. Finally, at about 20:00, after seven hours of troubleshooting, a successful test was carried out, drawing from the BHT and processing through the OWS. The 15-ppm alarm was tested, activating the 3-way valve to the recirculation mode. The oil purge valve was also tested upon start-up. Since the OWS is not frequently used, regular testing in the full operational mode is important. As noted elsewhere in this report, the required monthly test of the OWS is not completed as per the instructions. Completing the test monthly should be ensure that the equipment is operating properly and provide OWS operations training and experience.

10. The ORB Part 1 indicates monthly testing of the OWS, as required by the Scope of Work and the EMM Section 5.17 is being carried out. The engineers were unfamiliar with review of the memory card for the OMD 2005 Oil Content Meter (OCM) and consequently comparison between the memory card and the oil record book was not carried out. Recommend that training be completed on memory card review. Review of the Vigilant Enviro-Logger indicated only a limited monthly test is being performed and not a full operational test. During interview with the C/E and 2/E, I learned that the complete test specified in 5.17 is not carried out and the test is limited to the OCM alarm point and operation of the three-way valve. Recommend that the monthly test of the OCM and OWS be completed in accordance with 5.17.

    Recommend Ionia Management revise the EMM procedures contained in Section 5.17 and provide additional guidance as necessary to ensure a full operational test is carried out, including testing of the oil purge valves. Failure to complete the monthly test was noted as a deficiency on another vessel.

11. The 2/E is the sole operator of the Oily Water Separator; however, the designation in the Engine Room log book required by 5.16.1.v. has not been completed. Recommend that the designation be completed after the requirements of i-iv have been completed prior to the 2/E operating the OWS. Similarly, the 4/E operates the incinerator however; the designation required by EMM 5.19 has not been completed.

12. SWOMS data for tank soundings was compared against manual tank soundings. The following table shows the results:

| | Manual Level in cm | Manual Volume in $m^3$ | SWOMS Level in cm | SWOMS Volume in $m^3$ | Tank Cap. $m^3$ | % diff. |
|---|---|---|---|---|---|---|
| **20-May-11** | | | | | | |
| BHT | 46 | 3.105 | 47 | 3.2 | 22.7 | 0.4% |
| SBOT | 42 | 1.354 | 46 | 1.53 | 13.9 | 1.3% |
| Sludge | 12 | 2.264 | 0.11 | 2.08 | 14.6 | 1.3% |
| WOT | 90 | 1.26 | 90 | 1.22 | 1.79 | 2.2% |
| **21-May-11** | | | | | | |
| BHT | 46 | 3.105 | 47 | 3.24 | 22.7 | 0.6% |
| SBOT | 42 | 1.354 | 46 | 1.53 | 13.9 | 1.3% |
| Sludge | 13 | 2.41 | 11 | 2.16 | 14.6 | 1.7% |
| WOT | 96 | 1.35 | 95 | 1.28 | 1.79 | 3.9% |
| **22-May-11** | | | | | | |
| BHT | 46 | 3.105 | 47 | 3.26 | 22.7 | 0.7% |
| SBOT | 41 | 1.354 | 46 | 1.53 | 13.9 | 1.3% |
| Sludge | 15 | 2.702 | 15 | 2.71 | 14.6 | 0.1% |
| WOT | 69 | 0.97 | 1.47 | 99.99 | 1.79 | 5531.8%* |
| **23-May-11** | | | | | | |
| BHT | 48 | 3.321 | 50 | 3.49 | 22.7 | 0.7% |
| SBOT | 42 | 1.354 | 46 | 1.54 | 13.9 | 1.3% |
| Sludge | 17 | 2.994 | 14 | 2.54 | 14.6 | 3.1% |
| WOT | 70 | 0.99 | 1.47 | 99.99 | 1.79 | 5530.7%* |
| **24-May-11** | | | | | | |
| BHT | 30 | 1.612 | 29 | 1.52 | 22.7 | 0.4% |
| SBOT | 42 | 1.354 | 46 | 1.53 | 13.9 | 1.3% |
| Sludge | 18 | 3.14 | 15 | 2.74 | 14.6 | 2.7% |
| WOT | 32 | 0.45 | 9 | 0.13 | 1.79 | 17.9% |
| **25-May-11** | | | | | | |
| BHT | 35 | 2.03 | 36 | 2.1 | 22.7 | 0.3% |
| SBOT | 42 | 1.353 | 46 | 1.53 | 13.9 | 1.3% |
| Sludge | 19 | 3.286 | 15 | 2.73 | 14.6 | 3.8% |
| WOT | 28 | 0.2 | 9 | 13 | 1.79 | 715.1%* |

Two sets of sounding were taken during the audit on 25 March, one hour apart. The soundings were identical and so only one set is included in the table.

The above soundings were taken by the 2/E in the C/E's in my presence. The vessel was at anchor; therefore, there was no movement of the vessel that could skew the soundings. The sounding from the sounding tape was verified for each tank by both myself and the C/E and the value recorded. The printout of the SWOMS data was requested at about the same time the soundings were taken. To satisfy the recommendation from another audit, three manual soundings are taken each time and the average or median value recorded.

As indicated above, the enviro-logger soundings for the WOT is not accurate. According to the C/E, the sending unit's reliability and accuracy deteriorates under varying temperature and humidity conditions. Also according to the C/E, the company is aware of the issue; however it has not been documented. Recommend that the WOT sending unit be repaired as needed. Prior to my departure the C/E submitted a "Defect or Damage Report[12]" reporting that the waste oil tank envirologger gauging indication does not work and the company replied with the repair action plan. Excluding the waste oil tank, the average percentage difference between the manual sounding and the SWOMS was 1.3 %. Daily checks of the Enviro Logger are being carried out and recorded on Form ENV 023. I noted that the ENV 023 "Enviro-logger Checklist" includes, "Verify that the level data of measured tanks corresponds to manual sounding". The checklist dated 21 May 2011[13] is checked "No" however there is no explanation for discrepancies in the measurements. Recommend that ENV 023 be modified so that an explanation for discrepancies can be included in the form.

13. The FO Overflow Drain Tank (capacity 6.6 $m^3$), the Scavenger Air Box Drain Tank (capacity .4$m^3$), the L/O drain tank (capacity 3.1 $m^3$) and the M/E Stuffing Box drain (capacity 1.9 $m^3$) are not monitored by the SWOMS. The tanks are considered oily residue (sludge) tanks and are listed on the Supplement to the IOPP Certificate under 3.1. Recommend Ionia evaluate whether these tanks should be included in the SWOMS.

14. As was noted on another vessel, the contents of the Oil Transfer Procedures[14], required by 33 CFR 155.720, are not in full alignment with the regulations e.g. the procedures for topping off of tanks is not included. Recommend the procedures be amended to include specific citing of these regulatory requirements.

15. I noted that the sediment is not recorded during ballast tank inspections[15]. Prior to the completion of the audit, the C/O conducted training and sediment recording was carried out.

16. According to the C/E, the sounding log is maintained in the C/E's office; however, the Scope of Work requires that it be maintained in the engine control room EMM 9.5 requires that the Tank Sounding Log Book be maintained in the Engine Control Room. Recommend that the sounding log be relocated to the engine control room.

**Observations Without Recommendations**

1. I reviewed recent Port State Control exam records and found no deficiencies related to the environment:

| Country/authority | Date | Environmental Deficiency? |
|---|---|---|
| Russia | 17 May 2011 | No |
| Russia | 2 February 2011 | No |
| Greece | 5/4/2011 | No |
| Greece | 14/5/2011 | No |
| Black Sea | 1/2/2011 | No |

2. The vessel has a computerized Preventative Maintenance System (PMS) using the Ulysses software. The PMS contains detailed maintenance procedures for the pollution prevention equipment that are in alignment with the manufacturer's manual. Missing maintenance procedures were noted during another audit.

3. Vessel personnel are carrying out weekly and quarterly inspections to comply with the requirements of the EPA's recently adopted National Pollutant Discharge Elimination System (NPDES) Vessel General Permit. The Notice of Intent (NOI) has been filed with the EPA and the current date of coverage was 8 December 2010. The absence of a completed NOI was noted on another vessel.

4. Discharges overboard from the slop tanks are not occurring. All slops from ballast and tank cleaning are sent ashore. The ORB Part II verified this. The overboard line is blanked. Seals are installed on the ODME sampling lines and valves as recommended in another audit and the Scope of Work.

5. The ODME is tested monthly by the C/O. During the audit, the ODME was tested by the C/O in my presence. Instructions contained in the manufacturer's manual were used to perform the tests, with values for ship speed, PPM, and flow rate manually entered. Due to the vessel being at anchor and since a blank flange is installed in the ODME discharge line; an actual discharge test could not be performed. The high PPM and 30 liters/nm exceeded were tested. The discharge prohibited alarm was also verified, along with the operation of the recirculation valve. The C/O was very competent in the ODME operation and knowledgeable of the discharge requirements. Noted in another audit was the failure to record the monthly test in the ORB. As per the Scope of Work, the monthly testing is recorded in the ORB. The oil to water interface is routinely tested by cargo surveyors when discharge is carried out at terminals and was last completed 16 May 2011. The ODME was last calibrated and serviced by shore side technicians from ASIMTECH LTD on 22 May 2011.

6. The vessel maintains a Sounding Log as required by Section IV and Attachment B to the Scope of Work. Excerpts of the Log are attached[16]. The remarks section, used to explain significant changes in soundings from one day to the next, e.g. operation of

OWS, incinerator, transfer to slop tank, has been restored in the latest edition satisfying the recommendations made in a previous audit.

7. Section 11 of the EMM details the procedure for crewmembers to report environmental concerns and to remain anonymous if so desired. Crewmembers may report such concerns by calling a toll free telephone number, anonymous reporting email or anonymous reporting letter by post mail. Confidential, not anonymous reporting procedures are also mentioned in the Code of Ethics pamphlet. When I questioned various crewmembers on the reporting procedures and options, all were aware of the reporting procedures. This was noted as a deficiency on another vessel.

8. Hazardous waste such as fluorescent tubes, expired batteries, pyrotechnics, and medicines are being segregated from non-hazardous garbage and disposed of ashore. Shore side receipts specifically listing the categories of hazardous waste being sent ashore are being maintained by the C/O. There are procedures for the disposal of hazardous waste contained in the GMP. Chapter 6 of the EMM contains a table for the proper disposal of both non-hazardous and some categories of hazardous waste.

9. During my review of the Ballast Water Management Plan (BWMP), I found it to be in alignment with the IMO Guidelines and to meet the ship-specific requirements of the U.S regulations. Outdated appendix containing the U.S. ballast water exchange and reporting requirements was noted on another vessel. I questioned the C/O with regard to his knowledge of the U.S. ballast water requirements and he was fully aware and knew the current requirements were contained in the U.S. Code of Federal Regulations (CFR), a copy of which was on board.

10. The vessel maintains a satisfactory Ballast Water Log in the format required by the BWMP, detailing the ballast operations associated with each ballast water tank.

11. Environmental Procedures for Non-Crew Members, Form ENV 022 is implemented aboard. Currently, the form is required to be signed by all non-crewmembers who come aboard, e.g. vendors, surveyors, pilots, agents, etc.

12. The Garbage Management Plan (GMP) is a fleet-wide plan and now includes ship-specific information. The absence of ship specific information was noted as a deficiency on another vessel.

13. Although not required by MARPOL, the weekly voluntary recording of the Bilge Tank ROB in the ORB, using the "I" Code is being carried out as recommended during another audit. This is provided for by MEPC.1 Circ. 640 dated November 4, 2008.

14. The explanation of the role of the CCM noted as not being posted during another audit has been posted.

15. A flexible hose inventory is kept, with hoses stored in the forecastle. Number tags identify each hose, see photos. The absence of tags or labels was noted as a deficiency on another vessel.

16. The check of oil to sea interfaces specified in Attachment B and EMM 5.11 is carried out and logged in the engine logbook.

17. The Vessel Response Plan was approved February 9, 2011 and the vessel may continue to operate under the approval until August 21, 2011.

18. The ongoing audit recommended that ENV 020, "Declaration of Environmental Commitment" be revised. The previous ENV 020 included department specific aspects not applicable to all of the crew. ENV 020 has been revised with a revision date of 8/9/2010 satisfying the recommendation from the ongoing audit. There was no confusion on use of the form as was noted during a previous audit.

19. The ongoing audit recommended that the Declaration of Environmental Compliance, ENV 021 be completed by all crewmembers upon sign-off. EMS 10.6 now requires that Prior to crew member's signing – off , the crew member shall sign the company's "Declaration of Environmental Compliance" stating his compliance with all rules, regulations, legislation and company requirements regarding the environment satisfying the recommendation from the ongoing audit.

20. During my review of the Oil Record Book, Part I, I noted the sludge tank weekly retentions were recorded for seven sludge tanks listed under section 3.3.1 of the Supplement to the IOPP Certificate with the corrected volumes by the DNV surveyor (undated). Failure to include all of the tanks listed under 3.3.1 was noted on another vessel.

21. Oil Record Book Part II was well maintained. Entries were complete, neat and the handwriting was legible.

22. Engine room operations were observed when engine room pumps and machinery were in operation during the period the vessel was at anchor and underway. The engine room was observed to be in very clean condition. No leakages were noted from the main engine. No oil or oily residue was noted in the bilges or bilge wells. The bilge well below the main engine flywheel was dry and free of any oily residues. The bilge wells contained only small quantities of clean water. The Bilge tank was last cleaned on 17 April 2011. No leakages were noted from operating cooling water and general service pumps and there was no evidence of excessive leakages from static pumps. The accumulation of water in the bilge wells appeared to be due to condensation. The purifier room was very clean, with no evidence of leakages from the purifiers. Auxiliary diesel engines and steering gear also were noted to be leak free. See photos.

23. I reviewed the Garbage Record books. The books cover the period from 29 June 2007 until present and were well maintained.

24. The last renewal United States Certificate of Compliance exam, not required outside of United States waters, was issued 20 October 2007. The annual survey due 20 October 2008 was not completed and the Certificate has expired.

25. The State of California Certificate of Financial Responsibility was issued October 1, 2009 and expires September 30, 2011. The United States Certificate of Financial Responsibility was effective 6/29/2010 and expires 6/29/2013.

26. The most recent internal audit noted two items with environmental aspects. That the Garbage Record Book included an entry for a garbage grinder and no grinder is on board and that the bunkering checklist was not completed. Both items were satisfactorily closed out on 17 May 2011.

27. Samples were taken in accordance with Attachment B of the scope of work.

| | |
|---|---|
| Bilge well port forward | 0064738 |
| Bilge well starboard forward | 0064772 |
| Bilge holding tank | 0064761 |
| Oily Water Sep. | 0064751 |

28. A monthly Environmental Performance Report, Form ENV 004, is submitted to the Ionia office. Included on the form are garbage and hazardous waste disposal quantities. See attached sample report[17].

29. Incineration of sludge and evaporation from the WOST are carried out on a regular basis. See attached ORB excerpts. According to the ORB, the last four sludge incineration operations were as follows:

| Date | Liters | Hours | Rate in liters per hour |
|---|---|---|---|
| 22-May-11 | 340 | 9 | 37.78 |
| 19-May-11 | 950 | 33.5 | 28.36 |
| 16-May-11 | 660 | 21 | 31.43 |
| 9-May-11 | 891 | 18 | 49.50 |

The vessel generates about 250 liters of sludge per day. Main engine fuel consumption is about 30 MT/day. Sludge tank capacity, according to the Supplement to the IOPP Certificate, is 42.29 $m^3$. Sludge tank capacities and incinerator capacity appear sufficient to manage the storage and disposal of sludge.

30. A satisfactory test of the incinerator burning sludge and diesel was carried out.

31. The vessel is fitted with a sewage treatment plant (STP) made by DVZ, type DVZ-SKA-20, BIOMASTER, with a rated capacity of 3.70$m^3$ per day. The International Sewage Certificate shows a holding tank with a capacity of 7.4 $m^3$. According to the C/E, the STP is in continuous operation, both in port and at sea, with the direct overboard valve

kept chained and locked in the closed position, except during short periods of maintenance, while at sea. Accordingly, only treated sewage is discharged. According to the C/E, the system is adequate for the complement of the vessel, though the model type indicates capacity for only 27 persons. The Safety Equipment Certificate lists equipment for 28 persons. The complement during the audit was 23 persons. The vessel, however, is also equipped with a vacuum toilet system, which substantially reduces the amount of black water requiring processing.

32. The capacity of the OWS is 5 $m^3$/hour, which appears more than adequate for the currently generated machinery space effluents. According to the ORB, the last three operations of the OWS were as follows:

| Date | Quantity processed | Time | Rate |
|---|---|---|---|
| 28-Apr-11 | 3.96 | 1.30 | 3.04 |
| 30-Mar-11 | 4.08 | 0.95 | 4.29 |
| 24-Mar-11 | 5.81 | 1.37 | 4.25 |

As noted above, there has been no recent processing of oily bilge water through the OWS.

33. The vessel has a Deckma OCM, model OMD 2005, which conforms with requirements of MEPC 107(49). The OCM was last calibrated on 12 April 2011. The Scope of Work requires recalibration at least annually, with copies of the certificates maintained on board.

34. With the installation of the SWOMS, the flushing and sample lines to the OCM have been re-routed through the OWS LockBox, disabling the OMD 2005 manual flushing valve. The OWS LockBox's main function is to provide secured permissive functions that will only allow the 3-way overboard/recirculation valve to be moved to the overboard position once all the permissive functions are met. It will not allow for the mixing of the fresh and sample waters and must sense that enough sample water is flowing to the OCM for at least the last 20 seconds before it will allow control of the 3-way overboard/recirculation valve by the OCM. The flush push button is located on the front of the LockBox sealed cabinet. It is used to activate a solenoid valve in the LockBox which causes a 3-way valve to rotate 180 degrees and put fresh water to the OCM. The pushbutton signal is sent to the main Logger control panel in the ECR where it records that the flushing water has been activated, and then a signal from the control panel is sent to the solenoid in the Lockbox to activate the 3-way flushing valve. The 3-way valve is used to select whether the sample or fresh water is sent to the OCM. The design will not allow mixing of the sample thus ensuring that the sample cannot be diluted by fresh water. The flow switch inside the LockBox senses when sample water is flowing to the OCM and provides a contact closure to the system. It also provides the contact closure to indicate to the Logger that the OWS is running.

35. The manifold trays on deck on either side to contain any leakages or drips during loading, discharging and disconnection of shore connections are adequate relative to the requirements. FO vent containment, bunker line containment and sludge discharge containment are adequate and meets the U.S. Pollution Prevention Regulations.

36. The present engineering staff comprised of C/E, 2/E, 3/E, 4/E, two oilers, one wiper and an electrician appeared adequate to handle the operational, maintenance and repairs workloads for the systems, equipment and components on board. All the staff appeared to be professional and proficient in their knowledge and experience for the job allocated. They are fully aware of the effort needed to minimize the waste streams development. The vessel is certified for UMS operation.

37. Prior to joining MARPOL training is carried out in Manila for crewmembers. Familiarization orientation is completed at sign on and includes environmental topics. Weekly shipboard training, which includes safety, security and environmental training is carried out as per the six-month training schedule. In addition, environmental training is also carried out during monthly Safety Committee Meetings. See attached Safety Committee Meeting Minutes[18] for March and April 2011. Also, the vessel has an active Videotel Computer Based Training[19] with a wide range of topics that includes environmental subjects.

38. The vessel had all the manuals of equipment related to waste stream and type test certificates. Schematic diagrams and pipeline diagrams were on board. Attached are copies of the sewage system and bilge piping diagrams[20].

Overall condition of the vessel and waste management equipment is very good. As noted previously, despite the number of Observations with Recommendations noted above, the Scope of Work and EMM requirements are well implemented on board. All the personnel on board cooperated fully during the audit and were sincerely interested and very positive in complying with the environmental procedures.

Respectfully submitted by:

Jon Mahony

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**Enclosures**

[1] Vessel Particulars
[2] Crew List
[3] Compliance System Environmental Audit Checklist
[4] Photos
[5] Master's Handover Report dated 29 November 2010
[6] Chief Engineers Hand Over Report, ENV 023C Dated March 24th, 2011
[7] Excerpt from Oil Record Book part I
[8] IOPP and IOPP Supplement

[9] Spare Seal Inventory Instruction and inventory
[10] Engine Room Seal Log and instructions
[11] Vessel's Seals Allocation
[12] Defect report 8/11 dated 25 May 2011
[13] ENV 023 Envirologger checklist dated 21 May 2011
[14] Oil Transfer Procedure dated 24 March 2011
[15] Annual Ballast Tank Inspection dated 3 August 2010 and 24 May 2011
[16] Excerpt from Engine Room tank sounding log book
[17] ENV 004 – Vessel's Monthly Environmental Performance Report for April 2011
[18] Onboard Safety Committee Meeting Minutes for March and April 2011
[19] Videotel crew training record sample for 3/O Michael Villanueva
[20] Sewage system and bilge piping diagram

## SHIP'S PARTICULARS

| | | | |
|---|---|---|---|
| NAME: | FIDIAS | L.O.A: | 183.00 m |
| FLAG: | LIBERIA | B.P.P.: | 173.90 m |
| PORT REGISTRY: | MONROVIA | BREADTH: | 32.20 m |
| CALL SIGN: | A8MP7 | EXT. BREADTH: | 32.23 m |
| OFFICIAL #: | 13390 | M. DEPTH: | 19.10 m |
| IMO #: | 9358955 | G.R.T: | 29,993 |
| MMSI #: | 636 013 390 | N.R.T: | 13,605 |
| YEAR BUILD: | 2007 | SUEZ NET: | 25,563.20 |
| CLASS: | D.N.V. | SUEZ GROSS: | 31,375.20 |
| SHIP TYPE: | Oil,Chemical Tanker | PANAMA NET: | |
| LIGHTSHIP: | 10,038.6 MT | SUMMER D.W: | 51,276.8 MT |
| T.P.C: | 52 MT | SUMMER DRAFT: | 13.147 m |
| F.W.A: | 295 mm | SUM. FREEBOARD: | 5.983 m |

OWNERS

FIDIAS MARITIME S.A / # 80 BROAD STRT / MONROVIA / LIBERIA

OPERATORS

IONIA MANAGEMENT S.A / 12, LASKOU STRT / PIRAEUS 185 36 / GREECE

TEL: +30 210 4283860 / FAX: +30 210 4283864 / TLX: 213006 / E-MAIL: IONIAMAN@OTENET.GR

VESSEL'S COMMUNICATION

INM-F : PHONE: 761141829 -30 / FAX: 761141831 / TLX:

INM-C: 463 700 639 / E-MAIL: MASTER.FIDIAS@SKYFILE.COM

OTHER DIMENSIONS/DISTANCES

| | | | |
|---|---|---|---|
| KEEL TO TOP MAST: | 47.97 m | MANIFOLD TO MANIFOLD: | 2.00 m |
| BOW TO MID. MANIFOLDS: | 93.5 m | MANFOLD TO DECK: | 2.10 m |
| BOW TO BRIDGE: | 149.3 m | MANIFOLD TO SHIP SIDE: | 4.60 m |
| BRIDGE TO MID. M'FOLDS | 56.0 m | SHIP'S GANG-WAY LENGTH: | 13.00 m |
| BRIDGE TO AFT: | 33.7 m | IMMERSION DRAFT: | 6.50 m |

PARALLEL BODY

| | | | |
|---|---|---|---|
| LIGHT SHIP: | 56.0 m | N.B. AFT TO MANIFOLDS: | 43.80 m |
| L.S. FRWD TO MANIFOLDS: | 24.0 m | LOADED SUMMER DRAFT: | 102.60 m |
| L.S. AFT TO MANIFOLDS: | 32.0 m | L.S.D. FRWD TO MANIFOLDS: | 44.20 m |
| NORMAL BALLAST: | 89.0 m | L.S.D.AFT TO MANIFOLDS: | 58.40 m |
| N.B. FRWD TO MANIFOLDS: | 44.20m | | |

| SEASONAL | FREEBOARD | DRAFT | DISPLACEMENT | DEADWEIGHT |
|---|---|---|---|---|
| TROPICAL | 5709 mm | 13.421 m | 62,738.5 MT | 52,699.9 MT |
| SUMMER | 5983 mm | 13,147 m | 61,315.4 MT | 51,276.8 MT |
| WINTER | 6257 mm | 12.873 m | 59,892.4 MT | 49,853.8 MT |

CLASSIFICATION: DNV+A1,Tanker for OIL AND Chemical ESP, E0,VCS-2,TMON,BIS,NAUTICUS

BUILDER: STX SHIPBUILDING, JINHAE, REP. OF KOREA

PROPULSION & ENGINE: SINGLE PROPELLER, DIESEL B & W, 9490 KW

KEEL LAID: MARCH 2007 DELIVERED: JUNE 29, 2007



Fuel (1)

# IMO CREW LIST

Arrival: ☑ Departure: ☐

| 1. Name of Vessel | 2. Port of Arrival/ ~~Departure~~: | 3. Date of Arrival/ ~~Departure~~: |
|---|---|---|
| MT FIDIAS | PORTO MARGHERA | 25 MAY 2011 |
| **4. Nationality of Ship** | **5. Port Arrived From:** | **6. Port of destination** |
| LIBERIAN | PIRAEUS, GREECE | PORTO MARGHERA |

| 7.No | 8. Family Name, Given Names | 9.Rank | 10.Nationality | 11.Date / Place of birth | | 12.Passport Number | 13. Date of Issue | 14. Expiry Date |
|---|---|---|---|---|---|---|---|---|
| 1 | BIRMPILOPOULOS, GEORGIOS | MASTER | HELLENIC | 10.NOV.59 | AIGALEO | AB1444029 | 23.10.06 | 22.10.11 |
| 2 | LOAY, LAWRENCE C. | CH MATE | FILIPINO | 31.OCT.73 | MANILA | XX1101072 | 06.05.08 | 05.05.13 |
| 3 | BATILO, ALLAN C. | 2ND MATE | FILIPINO | 04.AUG.71 | BANTAYAN, CEBU | VV0020155 | 12.04.07 | 12.04.12 |
| 4 | VILLANUEVA, MICHAEL G. | 3RD MATE | FILIPINO | 10.MAR.80 | TINGLOY, BATANGAS | XX4381758 | 15.08.09 | 14.08.14 |
| 5 | HERRERA, HERRLAN S. | 3RD MATE | FILIPINO | 29.MAR.80 | MANDALUYONG CITY | XX0627538 | 28.02.08 | 27.02.13 |
| 6 | SIMOUDIS, ILIAS | CH ENG. | HELLENIC | 06.JUL.54 | ANAVRA | AH3392337 | 18.03.11 | 17.03.16 |
| 7 | DEFANTE, ROLLY B. | 2ND ENG. | FILIPINO | 20.FEB.59 | KABANKALAN N.OC. | XX4768559 | 15.10.09 | 14.10.14 |
| 8 | GEOLIN, TIRSO Q. | 3RD ENG. | FILIPINO | 04.OCT.76 | DALAGUETE, CEBU | XX3543007 | 23.04.09 | 22.04.14 |
| 9 | ABORDE, BARTOLOME W. | 4TH ENG | FILIPINO | 27.OCT.59 | JANIUAY, ILOILO | XX1079021 | 02.05.08 | 01.05.13 |
| 10 | ENCARNACION, PALERMO JR. V. | ELECT. | FILIPINO | 28.MAR.72 | NEGROS. OCC. | VV0149164 | 27.04.07 | 27.04.12 |
| 11 | PIENSENABIS, RICO V. | P/MAN | FILIPINO | 30.OCT.66 | JASAAN, MIS. OR. | UU0145454 | 13.11.06 | 13.11.11 |
| 12 | MARIYAPPAN, VIJAYAKUMAR K. | BOSUN | INDIAN | 01.MAY.71 | PALAKKAD, KERALA | B3874825 | 02.11.01 | 01.11.11 |
| 13 | ADUCON, MARLON F. | A.B | FILIPINO | 24.APR.77 | NASUGBU, BTS | XX5635266 | 01.03.10 | 28.02.15 |
| 14 | CASQUITE, RONNIE | A.B | FILIPINO | 07.FEB.82 | BADIANGAN, ILOILO | VV0507792 | 19.06.07 | 19.06.12 |
| 15 | EDAR, ROMULO T. | A.B | FILIPINO | 05.SEP.77 | CEBU CITY | XX5111959 | 07.12.09 | 06.12.14 |
| 16 | CABESADA, ISABELO JR. R. | A.B | FILIPINO | 07.SEP.61 | SOGOD, S.LEYTE | UU0535953 | 31.01.07 | 31.01.12 |
| 17 | ALBURO, LEOJOHN D. | O.S | FILIPINO | 19.JUN.88 | DEL CARMEN SDN | XX2056844 | 19.09.08 | 18.09.13 |
| 18 | QUIA, ALDRIN G. | OILER | FILIPINO | 21.AUG.74 | MALASIQUI,PANGASINAN | VV0603953 | 25.07.07 | 25.07.12 |
| 19 | MAALIHAN, ARVIN A. | OILER | FILIPINO | 25.NOV.78 | BATANGAS | WW0077981 | 13.08.07 | 13.08.12 |
| 20 | ALIMANE, ROMANO M. | WIPER | FILIPINO | 16.APR.79 | ILOILO CITY | EB0200929 | 11.05.10 | 10.05.15 |
| 21 | SUGANOB, AGUSTIN C. | COOK | FILIPINO | 07.AUG.57 | STA.BARBARA, ILOILO | XX0958976 | 17.04.08 | 16.04.13 |
| 22 | RIVERA, JEFFERSON P. | M/MAN | FILIPINO | 17.NOV.90 | OAS, ALBAY | XX3050962 | 19.02.09 | 18.02.14 |
| 23 | BANDOQUILLO, PAULO JR. N | M/MAN | FILIPINO | 25.DEC.74 | PAMPLONA, N. OR. | VV0509112 | 28.06.07 | 28.06.12 |

IMO Convention on Facilitation of International Maritime Traffic

..MO FAL

15. Date and signature of Master, authorized agent or officer

25 MAY 2011

BIRMPILOPOULOS, GEORGIOS

MASTER of MT FIDIAS



Encl (2)

# Compliance Systems, Inc.

Hamilton House ♦26 E. Bryan Street ♦ Savannah, Georgia 31401 USA
Telephone: (912) 233-8181 ♦ Fax: (912) 231-2938
E-mail: csi@compliancesystemsinc.com ♦ Web site: www.compliancesystemsinc.com


## Environmental Audit Checklist


This document and all of its contents is confidential. It should not be copied, retained, or distributed unless authorized by Compliance Systems, Inc.


**Contents:**



**1. Vessel Details:**

| | |
|---|---|
| Vessel Name | FIDIAS IMO#: 9358955 |
| Ports/Voyage | Piraeus, Greece → Venice, Italy |
| Dates of Audit | 22-25 May 2011 |
| Master | Georgios Birmpkopoulos |
| Auditor(s) | J. Mahony |
| Agent | Balkivtzis Shipping Agency |
| Cargo | 27,000 bbls Naptha |
| Time Arrive | 09:20 22 May 2011 |
| Time Depart | 19:40 25 May 2011 |



Encl (3)

## 2. Audits

**Type of EMS audit:** Initial/Internal ☐ Ongoing ☐ Final Audit ☒

**Yes (Y); No (N); Not Applicable (N/A); Not Observed (N/O)**

| | |
|---|---|
| Date of last ISM Internal Audit | 1 Apr 2011 |
| Were any non-conformities issued related to environmental aspects? | Yes |
| Has the vessel ever had an environmental audit? If so, list date and indicate by whom:: Internal Environmental Audit | 3-31-2011 |
| Date of last ISM External Audit? | 26 Jul 2011 |
| Were any non-conformities issued related to environmental aspects? | No |
| Did the review of the vessel's Safety Management System (SMS) reveal any unresolved occurrence reports relating to environmental systems? If so, explain. | No |
| Is this audit being conducted during a probationary period? | Yes |
| | |

## 3. Certificates

| International Oil Pollution Prevention (IOPP) Certificate | | | | | |
|---|---|---|---|---|---|
| Date of Expiry | 2012-6-29 | Issuing Authority | Liberia | Bilge Tank Capacity | 22.7 m³ |
| Incinerator Capacity | 49.9 kg/hr | OWS Capacity | 5 m³/hr | Sludge Tank Capacity | 42.29 m³ |

| International Sewage Pollution Certificate | | | | | |
|---|---|---|---|---|---|
| Date of Expiry | 2012-6-29 | Issuing Authority | Liberia | Holding Tank Capacity | 7 m³ |
| Type of STP | DV2- 5KA 20 Biomaster | Manufacturer | DV2 services GmbH | Daily Person Capacity | 27 |

| International Air Pollution Prevention Certificate | | | | | |
|---|---|---|---|---|---|
| Date of Issue | 2007-10-18 | Date of Expiry | 2012-6-29 | Issuing Authority | Liberia |

In addition to the above certificates, identify copies of certificates and records collected during the course of the audit: Registry ☒, Document of Compliance (DOC) ☒, Safety Management System Certificate ☒, USCG Certificate of Water Pollution Prevention (COFR) ☒, Familiarization checklist ☒, Training Schedule ☒, SOPEP Approval Letter ☒, OWS Manual ☒, Incinerator Manual ☒, Sewage Treatment Plant Manual ☒, Master's Standing Orders ☐, Chief Engineers Standing Order's ☒, Oil

Waste Piping Diagram ☒, Certificate Status Sheet ☒, Crew List ☒, Others:

**4. SOPEP - Shipboard Oil Pollution Emergency Plan** / Ref: MARPOL Annex I/26.1, 33 CFR 151.26

| | |
|---|---|
| Date SOPEP approved by Administration or Class Society | 2007-6-15 |
| List date of latest Annex II Contact List | 31 Mar 2011 |
| What is the official working language of the crew? | English |
| Correct contact numbers for Company, National, and Local authorities | Yes |
| Comments: | |

**5. Vessel Response Plans (VRP)** - Ref: 33 CFR 151.26, 29a; 33 CFR 155.210, 205, 235, 430

| | |
|---|---|
| Is the OPA-90 tank vessel/non-tank vessel VRP current and USCG approved?<br>Date of approval: | Yes |
| Is the Company Certification Statement included in the Plan | Yes |
| Date of last QI Drill | Unknown |
| Date of last emergency procedures drill | 31 Mar 11 |
| Date of last SMT Tabletop Drill | 18 Dec 2008 |
| Is Regular Training being carried out according to VRP | Yes |
| Does vessel have any State issued Oil Spill Contingency Plans?<br>State(s): California<br>Date(s) of approval: 12 Mar 2008 → 31 Mar 2013 | Yes |
| Comments: The vessel has not been in the United States in the last three years | |

**6. Pollution Drills and Training Records, and Familiarization** - Ref: 33 CFR 155.1055 and .1060

| | |
|---|---|
| Have all crewmembers received environmental awareness training by a qualified instructor at a training facility prior to joining the vessel? | Yes |
| Did the shore-based training consist of the ECP, EMS and existing marine environmental protection requirements and shipboard related technical practical information including the maintenance and repair of pollution prevention equipment? | Yes |
| Is annual refresher training being conducted ashore and or onboard? | Both |
| Has the crew, upon joining the vessel, been provided with instructions or details on how to provided anonymous reports to the Company, Designated Person Ashore, or the Environmental Compliance Manager? | Yes |

| | |
|---|---|
| Are notices posted throughout the vessel to inform the crew on how to report issues of Environmental non-compliances with the EMS or ECP? | Yes |
| Does the familiarization checklist onboard identify: Environmental Policies ☒, Awareness ☒, Reporting Procedures ☒ | Yes |
| Does the engineering crew have documentation of environmental training on a regular basis: Monthly ☒, Semi-annually ☐, Annually ☐, ☐ | Yes |
| Date of last bunker spill drill? 20 Jul 2010 | |
| Date of last environmental drill other than bunker spill? Location: Cargo Deck 19 Apr 2011 | |
| Is pollution prevention training conducted before bunker transfer? | Yes |
| Are pollution drills being conducted according to drill schedule? | Yes |
| Does the SOPEP drills include evaluation of personnel performing such duties? | Yes |
| Are QI notification drills conducted according to Federal, and State regulations? | Unknown |
| How long are training records being kept? | 3 years |
| Comments: Missing from the files, but located prior to the conclusion of the audit were the electricians familiarization sheet and the previous Master's declaration of sign off. | |

**7. Oil Record Book (ORB)** - Ref: MARPOL Annex I/20, 33 CFR 151.25

| | |
|---|---|
| Are all entries legible and signed by the certified engineers or rating who performed the specific task? | Yes |
| Each completed page signed by the Master and Chief Engineer (after page is filled) | Yes |
| Book maintained on board for 3 years, or as required by the ECP. List dates of ORBs maintained on board 2007 → Present | Yes |
| Do all entries contain at least the information required by the category code under which the entry was made | Yes |
| Is the quantity of sludge being incinerated equal to or less than the rated capacity of the incinerator for the time the incinerator was operated | Yes |
| Compare the tank size to the amount transferred with the amount of waste stream treated. Is this consistent with the actual operation of the OWS? | Yes |
| When bilge water is removed from a holding tank, do the recorded quantities match the quantities previously recorded as being pumped into the tank | Yes |
| Do all bilge water movements that are recorded tally correctly? | Yes |
| If bilge water has been transferred to a shore-side facility or to a slop barge, does the quantity and date recorded on the receipt match the information in the ORB? | Yes |
| Are receipts for bilge slops transferred ashore or to a slop barge attached to the ORB page where the entry is recorded? | No |
| Are there identical entries or similar entries for recorded operations of the OWS or incinerator that cause suspicion | No |

| | |
|---|---|
| Is evaporation or draining of water from the incinerator waste oil tank being recorded in ORB 12.4 | Yes |
| Are weekly ROBs for sludge tanks being recorded? | Yes |

| | |
|---|---|
| H 26. Date, location, and amount of bunkers taken. . | 22 May 2011, Piraeus 15,000 Litres |
| H 26. Date, location, and amount of bunkers taken | 17 May 2011, Tuapse 599,559 MT's 380 |
| H 26. Date, location, and amount of bunkers taken | 5 May 2011 Malta 400,141 MTs 380 |

| | |
|---|---|
| D 15.1 Date, total time or operation, and quantity of OWS discharged. | 28 Apr 2011 1 hr 18 minutes 3.95m³ |
| D 15.1 Date, total time or operation, and quantity of OWS discharged. | 30 May 2011 57 minutes 4.076 m³ |
| D 15.1 Date, total time or operation, and quantity of OWS discharged. | 24 May 2011 1 hr 22 min 5.813 m³ |

| | |
|---|---|
| D 15.3 Bilge water transferred to holding tank. | 18 May 2011 1.15 m³ |
| D 15.3 Bilge water transferred to holding tank. | 29 Apr 2011 .627 m³ |
| D 15.3 Bilge water transferred to holding tank. | 27 Apr 2011 1.834 m³ |

| | |
|---|---|
| C 12 Date, location and quantity of oil disposal If incinerated list time and quantity | 22 May 2011 .34 m³ 9 hours |
| C 12 Date, location and quantity of oil disposal If incinerated list time and quantity | 19 May 2011 .95 m³ 33.5 hours |
| C 12 Date, location and quantity of oil disposal If incinerated list time and quantity | 16 May 2011 .66 m³ 21 hours |

| | |
|---|---|
| Are there any additional Codes in the ORB:<br>F: Condition of Oil Discharge Monitoring and Control System<br>G: Accidental or other exceptional discharges of Oil<br>I: Additional Operational Procedures and general Remarks. | I maintenance + testing |

| | |
|---|---|
| Are there any Codes:<br>Are there any remarks or entries that are not normally identified in the ORB? | No |

**8. Garbage Management Plan (GMP)** , -Ref: 33 CFR 151.63; MARPOL Annex V/9, V/3; 7 CFR 330.400

| | |
|---|---|
| Is there a Garbage Management Plan (GMP) on board? | Yes |
| Who is listed as the Garbage Management Officer? | C/O |
| Are designated crewmembers familiar with Plan? | Yes |
| Is there documented evidence of Garbage Management training? | Yes |
| Is shipboard garbage properly handled IAW Garbage Management Plan? | Yes |
| Is the GMP Ship specific? | Yes |
| Are plastics segregated from other waste? | Yes |
| Are waste containers provided, securely covered, and leak proof? | Yes |
| Garbage containers located within the vessel with non-combustible sides and bottom? (SOLAS requirement) | Yes |
| Garbage Record Book entries correct:<br>Type, amount, location, date/time ☒, Errors lined thru, initialed, corrected – no white out used ☒, Each entry signed by PIC and each page by Master ☐, Reports of inadequacy of port reception facilities for garbage on file ☐ | Yes |
| Is the Garbage Record Books maintained onboard for the past 2 years?<br>List dates of GRB on board 29 Jun 2007 → Present | Yes |
| Is the incinerator being used to burn garbage?<br>If so, what categories? – No plastics | Yes |
| Are plastics being burned in the incinerator? If so, is the incinerator rated for the burning of plastics? | No |
| Is there any evidence that plastics or synthetics have been discharged overboard? | No |
| Is waste sorted to prevent hazardous waste entering non-hazardous waste streams or? | Yes |
| Are there separate defined storage areas doe hazardous /non-hazardous – no commingled waste? | Yes |
| Signage/placards in working areas of crew in the official working language? | Yes |
| Incinerator ash if discharged overboard free of plastic residue or free of unburned food wastes if landed ashore. | Yes |
| Are trash chutes clean, free from oil residue (no oil stains on decks, side of hull adjacent to trash chutes)? | N/A |
| Are foreign food wastes handled per APHIS regulations? | Yes |

| | |
|---|---|
| Are medical wastes incinerated or manifested as bio-hazardous waste? | Manifested |
| Garbage discharged outside special areas. | Yes |
| Incinerator operation observed? Provide details:<br>Operated on sludge and diesel | Yes |
| Garbage Pollution Placards posted? | Yes |
| Procedures to minimize amount of potential garbage in place<br>• Is vessel encouraging ship suppliers to consider alternate means of packing – use of other than plastic | Yes |
| • Is vessel reusing packing (examine stockpiles) | Yes |
| • Is waste generated in port disposed to shore reception facilities prior to sailing | Yes |
| Is there a recycling program onboard? | Yes |
| Does the vessel have procedures/policy for recycling? | Yes |
| Is ship's crew following recycling procedures/policy? | Yes |
| Is maintenance being carried out on equipment – e.g. incinerator, grinders | Yes |
| Are records maintained and manifests completed for potential hazardous waste streams: used solvents ☐, paints and thinners ☐; fluorescent/mercury vapor bulbs ☐: batteries (NiCad, Lead Acid, Lithium, Alkaline) ☐; pharmaceuticals/narcotics ☐; aerosol cans ☐; expired pyrotechnics ☐; incinerator ash if contaminated with toxic/hazardous substances (plastics containing heavy metals) ☐ | Yes |
| Is there evidence that hazardous wastes are being incinerated, diluted, neutralized, or evaporated as a means of disposal | NO |
| Comments: Training is completed (Garbage Management) monthly & with CBT. | |

**9. Oily Water Separator (OWS)** – Ref: MARPOL Annex I /16; 33 CFR 155.380(b)

**Request the Chief Engineer to provide a line drawing of the oil waste stream system which includes the OWS, bilge piping, bilge main cross connections and holding tanks. Compare drawing to installation and attach drawing to report.**

| | |
|---|---|
| Is the OWS operational? | Yes |
| OWS Capacity: 5 m3 / hr Turbulo Separator<br>Approval number & date: 1/8/2009 Certificate 330.199<br>MEPC Resolution compliant with: 107(49) type TMPB 0.25 - 15 | |
| Are the manufacturer's manual and schematics for the OWS and OCM correct and readily available?<br>List locations: C/E office and ECR | Yes |
| If time permits, perform an operational test of the OWS under actual operational conditions, with considerations of the manufacturers' recommendations. The test shall process the contents of the Bilge Holding Tank without dilution. Time of operation from: 20:00 to 21:15. Lat./Long. | 6.208 m³ processed. |
| Are there records to indicate the OCM is periodically calibrated? Last calibrated 12 Nov 2011 | Yes |
| Was the OCM calibrated by a shore facility or onboard by the ship's crew? | Shore |
| Date the OWS was last opened for inspection and/or cleaning 10 May 2011 | |
| Is there documentation the person operating the OWS has received familiarization and operation training? | No |
| How often is the OWS training being conducted and by whom?<br>monthly - C/E | |
| Are there clear and precise operating instructions posted for: valve alignment, pressure settings, heating, resetting, accidental discharge and securing? | Yes |
| Does the OWS automatically re-circulate (3-way valve) or shut down when the 15ppm level is reached? | Recirc |
| Are there any modifications to bilge piping, not approved by Class and nit IAW approved plans? | No |
| Has the OWS overboard pipe been previously removed for inspection or cleaning?<br>Dates: June 2010 during ongoing audit | Yes |
| What is the company policy regarding periodic cleaning of the OWS?<br>every 6 months | |
| Has the coaleser filter been cleaned and or/replaced?<br>Dates: 8 Nov 2010 | Yes |
| How many spare coaleser filter sets are onboard? | 1 set |
| Operator competent and knowledgeable of operation (CE and 2AE) | Yes |

| | |
|---|---|
| 15 PPM Oil Content Meter and alarm tested satisfactory | Yes |
| Does unit have multiple Oil Content Meters?<br>if so, are reading consistent? | No |
| Sample analyzed by meter is OWS output (Trace sample line for presence of unacceptable clean water connection) | Yes |
| Are there any electrical bypasses, jumpers, extra switches on or within unit or Meter control panel | No |
| If the flushing line is left open position will the OWS continue to operate? | No |
| System back flush or oil purge cycle operates properly | Yes |
| Is the flushing system on the OWS fitted with a Key switch that will allow the flushing or cleaning water to be supplied to the OCM? | Yes |
| When the flushing line key switch is activated, does the OWS output divert back to the holding tank or bilge? | Yes |
| Is the freshwater flushing line to the Oil Content Monitor painted a bright color to distinguish it from other piping and tubing in the area? | Yes |
| Seal at the end of the flushing line tube ends and fitting. | Yes |
| Is there any evidence of tampering or additional connections to the flushing line? | No |
| Is the OWS overboard valve secured by seal or lock? If locked, who has possession of the key? locked C/E | |
| Is there a list of chemicals approved by the OWS manufacturer for use in the OWS? | Yes |
| Is there a record of OWS alarms kept? If so, how? OCM memory + environlog | Yes |
| What is the company/ship policy regarding cleaning of the OWS source tank (Bilge Holding Tank)? every three months | |
| When was the OWS Source tank last cleaned: 17 Apr 2011 | |
| What is company/ship policy regarding the maintenance of a minimal level in the OWS source tank to avoid contamination of the OWS? No | |
| • Visually sample processed water for gross contamination (sheen or visible oil) ☑<br>• Compare ship's operational maintenance routine with actual preventative maintenance conducted ☐<br>• Request proof /documentation of maintenance completed (used consumables from OWS, receipts service, technician reports, contractor disposal records ☒<br>• Review meter calibration records ☐<br>• Review strip charts if fitted ☒<br>• Examine other machinery pace overboard piping for unusual connections ☑<br>• Review records pertaining to system repairs ☒<br>• Consider opening access cover to first and second stage chamber for inspection in internal condition ☐<br>• Consider removing first section of piping upstream of OWS overboard valve – inspect for oil residue ☒ | |

| |
|---|
| • Look for piping modifications that are not shown on original vessel drawings that would facilitate discharge of bilge water around Oil Content Meter ☐<br>• Check zero and calibration function & last dates of service for the OCM or OCD ☐<br>• Test operate OCM/OCD ☐<br>• Test Oil Detection Probe & auto/manual drainage of oil in OWS chamber ☐ |
| Comments: The ows is operated by the 2/E however, the designation required by EMM 5.16 in the engine log book has not been made. |

**10 Sounding Log**

| | |
|---|---|
| Are the sounding logs completed daily and initialed by the certifying engineer who obtained the sounding? 4/E & 3/O | Yes |
| Is the Sounding Log maintained in the ECR and is it readily available? C/E office | |
| Are entries written ink, pencil, or both? | Ink |
| Is the Sounding Log bound with numbered pages | No |
| Is the Sounding long maintained onboard for 3 years? | Yes |
| Is it documented at what times of day sounding are to be taken? | 12:00 |
| Who is designated to take the soundings? | 4/E & 3/O |
| Does the Master sign the Sounding log on a weekly basis? | Yes |
| Does the Sounding Log contain the statement " written under the penalty of perjury or dismissal that the soundings taken and corresponding reading are accurate by the engineers involved to the individual's best belief and understanding" | Yes |

**11. Oil Transfer Procedures and Operations (Bunker Procedures)** - Ref: 33 CFR 154.500, 155.700-.720, 155.750, 155.785, 155.790, 155.800, 155.805, 155.820, 155.1010, 155.1030, and 156.170

| | |
|---|---|
| Oil Transfer Procedures posted and available in crew's language | Yes |
| Description of transfer system, including a line diagram of piping system (pumps, vents, valves, alarms, shutoffs, etc.) | Yes |
| Person in Charge fluent in English or language mutually agreed upon w/ shore side PIC | Yes |
| Format in CFR order or cross reference index page | Yes |
| List/description of products carried by vessel | Yes |

| | |
|---|---|
| Declaration of Inspection (DOI) available and retained for at least one month 33 CFR 156.50 | Yes |
| Number of persons required on duty during transfer | Yes |
| Duties listed by title of each person | Yes |
| Two-way means of communication available | Yes |
| Procedures to top off tanks and disconnect | Yes |
| Procedures to report oil discharges | Yes |
| Emergency response procedures outlined | Yes |
| Is lighting at each transfer operations work area adequate and properly shielded | Yes |
| Oil Pollution Placard posted (most recent U.S. placard) **33 CFR 155.450** | Yes |
| Has the pollution prevention equipment prepared in advance and is the portable pump rigged for operation? | Yes |
| Has the bunker line been tested in accordance with 33CFR 156.170(c)(4) | 19 Nov 2019 |
| Has a pre loading plan been completed (Washington) | N/A |
| Is condition of oil transfer hoses on board satisfactory | N/A |
| Are shipboard hoses marked with MAWP, Mfg. Date, test date) | N/A |
| Are hoses blanked off when not in use | N/A |
| Is there a record of tests and inspections | N/A |
| Comments The OTP's are not in alignment with the regulations. | |

**12. <u>Standard Discharge Ship/Shore Connection</u>** - Ref: MARPOL Annex I/19; 33 CFR 155.430

| | |
|---|---|
| Properly fitted | Yes |
| Is the blank flange securing the bilge and sludge transfer system shore connection discharge valve at the discharge stations sealed? | Yes |
| Comments: | |

**13. <u>Overflow Discharge Containment</u>** - Ref: 33 CFR 155.320

| | |
|---|---|
| Size adequate (<1600GT ½ bbl, >1600GT 1 bbl) | Yes |
| Fixed around fuel/lube/sludge lines and vents | Yes |
| Fitted with drains and plugs | Yes |
| Mechanical type scupper closures fitted on deck drains | Yes |
| Comments: | |

**14. Prohibited Oil Spaces & Oil Accumulation Spaces** - Ref: 33 CFR 155.470

| | |
|---|---|
| No oil or hazardous substances carried in a forepeak tank or tank forward of collision bulkhead | No |
| Are the following spaces clean and free of oil?<br>• Tail shaft recess ☐<br>• Purifier room ☐<br>• Below boiler ☐<br>• Hydraulic pump rooms ☐<br>• Steering flat ☐ | Yes<br>Yes<br>Yes<br>Yes<br>Yes |
| Comments: | |

**15. Bilge Water Management** - Ref: MARPOL Annex I

| | |
|---|---|
| Is there contamination/oily residue in bilges on bulkheads, piping, structures, main engine casing, rose boxes? Detail below: | No |
| Is there leakage from systems and engines into machinery spaces? Detail below: | No |
| Is there evidence of recent cleaning of systems, equipment, and components? | No |
| Is there adequate tank capacity to store bilge waste? | Yes |
| Is there evidence of detergent usage (emulsions cannot separate in gravity separator and are likely to result in discharges over 15 ppm)? | No |

| | |
|---|---|
| Is there evidence of excessive water ingress from pump glands, seals, and valve glands? | No |
| List the quantity and location of any portable diaphragm or other portable pumps onboard?<br>1 - engine tool room | |
| Are there hoses, fitting, and connections in areas where usage is unknown? | No |
| Are overboard bilge, bilge & ballast, and salt-water service valves locked or sealed? | Yes |
| Are blank flange assemblies associated with piping leading overboard (saltwater service, main engine raw water cooling and other systems) permanently secured, removed or fitted with numbered seals through the flange bolts? | Yes |
| Is the bilge main cross connections valves labeled, numbered and sealed? | Yes |

| | |
|---|---|
| Are there any blank flanges, pipe caps, or dead-ended valves or tees on inlet or outlet piping. | No |
| Evidence of bolting/unbolting of associated piping segments | No |
| Recent paint on pipe segments to indicate illegal removal | No |
| • Examine machinery space bilges completely ☒<br>• Check records for engine oil usage, quantities – where lost, consumed, in bilge ☒<br>• Check status of oily bilge water tanks – last cleaned, at capacity? ☒<br>• Levels of tanks during inspection – high or low? ☒<br>• If tanks near full, what are the vessel's processing plans ☒ | |
| Comments: | |

## 16. Seal Management Program

| | |
|---|---|
| Is there a seal management program onboard? | Yes |
| Review the Chief Engineers official seal log book and the Master's additional seal log documenting when seals are replaced along with their respective numbers. | |
| Is there a seal number logbook identifying the seals in use and explanations provided when a seal is broken or removed? | Yes |
| Where seals are used are there more than one seal to secure the valve or flange? | No |
| Are the replacement seals stored in the Masters safe or in a secure area in the Master's office? | Yes |
| Is there any duplication of seal numbers? | No |
| Are the seals in use capable of being removed during an emergency? | Yes |
| Comments: The seal logs and the seal installation do not agree. The logs are hegvily overwritten and white out correction fluid was used | |

## 17. Waste /Sludge Oil Incineration

| | |
|---|---|
| Is the Incinerator onboard and operational? | Yes |
| Calorific 372kW, Solid 80 kg/hr waste oil 38 kg/hr<br>Incinerator Capacity: _____, Approval number & date: MEPC 76(40) | |
| Is the manufacturers manual and schematics for the Incinerator correct and readily available?<br>List locations: C/E office | |
| Is there a record of tests, maintenance, and inspection of the incinerator? | Yes |
| Who is designated to operate the shipboard incinerator? C/E<br>Is it documented? No | |
| Are there operating instructions for the complete operation of the incinerator, including the valve alignment, temperature settings, reporting and documenting? | Yes |
| Incinerator operates with sludge/waste oils? | Yes |
| Is there evidence of use (clean or dirty firebox)?<br>List the holding capacity of the Waste oil tank | clean |
| Transfer pumps operable? Test. | Satisfactory |

| | |
|---|---|
| Transfer pump to sludge system, ashore or incinerator settling tank only; receipts. | Yes |
| Do the waste oil connections on deck meet 33 CFR 155.430? | Yes |
| • Check status of sludge tanks – full/empty<br>• Check to see if there are connections to bilge main or other areas<br>• Review estimated quantities of sludge produced – normal or excessive (fuel sludge production can exceed 2% of total fuel used)<br>• Inspect incinerator main burner, pilot burner & igniter for overall operational condition<br>• Inspect condition of refractory. Look for signs of overheating<br>• Test operate incinerator using waste oil if sludge temperature permit. Test safety cutouts, verify pressure gauges and thermocouples<br>• At minimum, test unit on D.O.<br>• Determine incinerator ash disposal plan<br>• Check C/E incinerator log book for operational hours and maintenance<br>• Inspect waste oil tank – drain, heating coil, level gauge, thermometer, date last cleaned | |
| Comments: The incinerator is operated by the 4/E however the required designation in the engine log book has not been made. | |

**18. <u>Sewage Waste Stream</u>** – Ref: MARPOL Annex IV; 33 CFR 159.57, Ref: 33 CFR 159.65, NVIC 9-82, Ship's Safety Management System

| | |
|---|---|
| Is the Sewage Treatment Plant (STP) operational? | Yes |
| Sewage System rated capacity: 27 Persons. Maximum crew capacity 28 Persons<br>IMO and/or USCG Approval number: & date:<br>2007-10-18 | |
| Is the manufacturers manual and schematics for the Sewage Treatment Plant correct and readily available?<br>List locations: ER | |
| Is the system rated for more than the maximum allowed on the Safety Equipment Certificate? 1 | No |
| Are toilets, urinals, scuppers piped to sewage plant? | Yes |
| Is all drainage from medical (hospital) areas piped to sewage system | Yes |
| Is system installed, maintained and operated IAW approved plans and mfg. specs | Yes |
| If a gray water holding tank is onboard, list the holding capacity. | 7.80 m³ |
| Is the STP direct overboard valve locked? | in port |

| | |
|---|---|
| Are there SMS procedures for maintenance available? | Yes |
| If so, are they being followed? | Yes |
| Does the unit contain proper level of chemicals? | Yes |
| Are the chemicals used in the STP approved by the manufacturer? | Yes |
| Are their sufficient chemicals on board? | Yes |
| Is the unit operating within the manufacturers design specifications? (Records) | Yes |
| Are their clear and simple operating instructions/manual available? | Yes |
| Are their records of maintenance and cleaning of unit? | Yes |
| Is there a nameplate with approval data posted on the unit? | Yes |
| As there been any shore disposal, if so, reason. I.e.: dry dock | No |
| Are there bypass piping arrangements fitted | No |
| Does company have any procedures requiring record of discharge at sea, e.g. logbook with Lat/Long when system is in operation | No |
| Are period tests of effluent conducted iaw manufacturers instructions? | Yes |
| Is a logbook maintained for the recording of chemicals added and maintenance performed? | Yes |
| Comments: The 4/E maintains an sewage plant maintenance log in addition to the preventive maintenance system | |

**19. Fuel Oil / Lube Oil Purifier Settings and Line Breaks**

| | |
|---|---|
| Is there a logbook relating to fuel oil and lube oil management and to the operation of the fuel oil and lube oil purifiers and for line or piping failures? | No |
| Is the shoot interval settings for each purifier documented at all times | 60 minutes |
| Have there been any incidents involving the vessel receiving poo5 quality fuels?<br>Provide details: | No |
| Have there been any extraordinary operations such as frequent draining of fuel oil service and settling tanks, lube oil sump tanks, excessive water, etc.<br>Provide details: | No |

| | |
|---|---|
| Any incidents occurred and recorded of fuel, lube or waste oil system failures including high-pressure lines of diesel engines due to operational error?<br>Provide details: | No |
| Any incidents occurred and recorded of accidental or unintended releases of quantities of water: salt, fresh, condensate, or cooling?<br>Provide details: | No |

**20. Hazardous Waste** - Ref: 40 CFR 262 and 264; 49 CFR 176: RCRA; ISM Code; Safety Management System

| | | |
|---|---|---|
| Has there been training of responsible persons in hazardous waste disposal? | Yes | |
| Is there evidence (e.g. lack of disposal records) of hazardous waste being discharged overboard | No | |
| Are hazardous wastes being properly stored, maintained, labeled, and placarded | Yes | |
| Is hazardous waste being commingled with non-hazardous waste | No | |
| Does the crew have ready access to spill control and decontamination equipment? | Yes | |
| Are MSDS sheets available for hazardous materials, e.g. cleaning chemicals | Yes | |
| Review the policy, procedures and current practices used to store or dispose of the following:<br>Solvents ☑, Degreasers ☑, Cleaning wastes ☑, Batteries ☑, Paints ☑, Oily rags ☑, Fluorescent and incandescent bulbs ☑, Expired boiler and engine chemicals ☑, Used boiler and engine chemicals ☑, Galley greases ☑, Pyrotechnics ☑, Medical supplies ☑, Contaminated fuels ☑, Used Oils and greases ☑, Incinerator ash ☑, Transformer oils ☑, Contaminated refrigerants ☑, Hazardous materials ☑ | Yes | |
| Comments:<br>Hazardous waste training is conducted at crewing office and Videotel CBT module. | | |

**21. SOPEP Gear**

| | | |
|---|---|---|
| Is the onboard oil spill gear identified and inventoried"<br>Sorbents ☑, Non-sparking hand scoops ☐, Shovels ☑, Buckets ☑, Containers suitable for holding recovered waste (12bbls) ☑, Emulsifiers for deck cleaning ☑, Protective clothing ☑, Non-sparking portable pump with hose ☑, Scupper plugs ☐. | Yes | |

| | |
|---|---|
| Is an inventory kept?<br>How often and by whom? monthly C/O | Yes |

22. **Ballast Water Management** – Ref: 33 CFR 151.2045 and NVIC 7-04 (Change 1)

| | |
|---|---|
| Is the Ballast Water Management Plan (BWMP) approved by Class?<br>Name of Class: DNV 27 Sep 2007 | Yes |
| Does the BWMP identify: Particulars ☑, Piping Plan ☐, Ballast Pump Details ☑, Sampling Points ☑, Training ☑, Exchange Procedures ☐, Safety Precautions ☑, IMO Guidelines ☐, Handling Log ☑, BWM Officer ☑ | Yes |
| Where is the BWMP kept onboard? | CCR office |
| Is the BWM officer familiar with the BWMP? | Yes |
| Does the vessel maintain an updated and accurate BW Log? | Yes |
| For the port of arrival, was a Ballast Water Report completed and submitted to the proper agencies? | No - Not signed. |
| Are the BW Reporting Forms being properly completed? | Yes |
| Are the BW Reports from previous ports kept onboard for two years? | Yes |
| Has the vessel recently undergone a Ballast Water exam by Port State Control? | No |
| Is the vessel equipped to treat ballast water or transfer ballast ashore? | transfer |
| How often are ballast tanks required to be inspected by SMS procedures | Annually |
| During ballast tank inspections, is the amount of sediment being recorded? | No |
| Comments: Sediment was not being recorded.<br>To discharge contaminated ballast through the cargo manifold a spool piece is used to connect the ballast line to the manifold. | |

23. **Additional Environmental Items (Check Company Specific ECP)**

| | |
|---|---|
| - The ODME is approved under 108(49) | |
| Never discharged to the sea through ODME | |
| The oil to water interface is routinely | |

| | |
|---|---|
| tested by cargo surveyors at facility and was last carried out 16 May 2011 | |
| | |
| | |
| | |

**24. General Comments, Observations, Recommendations**

- The oil record book Part I was very difficult to read. There were many corrections that were heavily over written and the penmanship was poor.
- The oil record book Part I includes bunker entries in litres vice MT as required.
- EMM 9.5 requires the responsible officer to make the ORB entries, IV.a of scope of work requires C/E to make the entries.
- Fleet ~~ensente~~ engineering surveys have been completed
- The Masters handover notes did not accurately record calibration records
- The C/E's handover notes do not include the day to day bilge loads and accumulations + the accounting for spare parts and instruction manuals was inaccurate.
- Flexible hoses are numbered, tagged and inventoried as required by the C/O.
- The last five port state control exams did not include any environmental related deficiencies.